

GABRYL-SWIKOWA, M.; STILLER, A.

Tietze's disease. Polski tygod. lek. 14 no.7:323-325 16 Feb 59.

1. Z Oddzialu Chorob Wewnetrznych Szpitala Czerniakowskiego i
Lecznicy Ministerstwa Zdrowia w Warszawie; ordynator: prof. dr med.
M. Fejgin. Adres: Warszawa, ul. Stepnska 19. Szpital Czerniakowski.
(RIBS, dis.

Tietze's dis., case reports (Pol))

GABRYS, Aleksandar

Evaluation of the determination of the blood catechol level
in patients operated on for hyperthyroidism. Pol. Lek. 19
no.16:585-589 13 Ap '64.

1. Z. D. Kliniki Chirurgicznej St. Akademii Rezydencji w Zabrze
(kierownik: prof. dr. J. Gasinski).

GABRYŚ, Al-karier; WYSOCKA, Irena

Laser solution of vitamin D-3 in the treatment of postoperative tetany. Pol. tyg. lek. 20 no.31:1160-1162 2 Ag '65.

1. Z II Kliniki Chirurgicznej Slaskiej AM w Katowicach (Kierownik: prof. dr. med. Jozef Gasinski).

GABRYS, Alojzy; GABRYS, Karol

Toxoplasmosis in cats. Wiad. parazyt. 9 no.3:201-210 '63.

1. Wojewodzki Zaklad Higieny Weterynaryjnej, Katowice.
(CAT DISEASES) (TOXOPLASMOSIS, ANIMAL)
(ZOOSES)

GABRYŚ, Antoni; LIBIŃSKI, Maciej

Serologic studies in cats for toxoplasmosis. Wiad. parazytol. 10
no.4:389 '64

1. Wojewódzki Zakład Higieny Weterynaryjnej, Katowice.

GARRY'S, Jan, mgr inz.

~~Extent of~~ on the gallery supports in disturbed
zinc ore deposits. Rudy i metale 6 no.8:340-345 Ag '61.

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

GABRYS, Jan, mgr inz.

Graduate engineers and technicians and technological progress. Rudy
i metale 8 no.2:75-76 F '63.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

BATORSKA-GABRYŚ, Wanda, mgr inż.; GABRYŚ, Jan, mgr inż.

Mining industry and processing of more important mineral raw materials in Morocco. Rudy i metale 8 no.8:309-315 Ag '63.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

POLAND

CZEKALA, Zbigniew, Lek. med. and GABRYS, Karol, X ray Department (Zaklad Roentgenologiczny) of the Municipal Hospital (Szpital Miejski) im. Andrzeja Mielockiego in Chorzow and the Silesian Zoological Garden (Slaski Ogrod Zoologiczny) in Katowice

"Technique for Investigating Venous Circulation in the Long Bones (Osteomedulligraphy) in the Dog."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 19, No 5, May 63, pp 244-247.

Abstract: [Authors' English summary modified] Authors describe an osteomedulligraphic method (osseous phlebography) using the Polish contrast medium "Triuropan 300," as well as the normal morphological and functional findings, which are the same for all long bones. The medium gives a good x ray and does not irritate the bone marrow, while the method is safe and can be carried out aseptically. It is recommended for diagnostics of intraosseous or bone marrow diseases, particularly of benign or malignant growths in the early stages. The six references comprise four German and two Western ones.

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"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

GABRYS, Alojzy; GABRYS, Karol

Toxoplasmosis in cats. Wiad. parazyt. 9 no.3:201-210 '63.

1. Wojewodzki Zaklad Higieny Weterynaryjnej, Katowice.
(CAT DISEASES) (TOXOPLASMOSIS, ANIMAL)
(ZOOSES)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

GABRYS, Karol.J.; PRZESMYCKA, Irena

Proteinogram in experimental toxoplasmosis in the dog. Wiad.
parazyt. 9 no.6:531-534 '63

1. Wojewodzki Zaklad Higieny Weterynarnej, Katowice.

*

GABRYS, Karol; SZAFLARSKI, Jerzy

Allergometric studies of toxoplasmosis in dogs. Wiad. parazyt.
10 no.4:387-388 '64

l. Wojewodzki Zaklad Higieny Weterynaryjnej, Katowice.

GOLA, Alfred; NORSKI, Tadeusz; GABRYS, Krzysztof

Evaluation of the clinical and chemical effect of intramuscular polythiazide (renese). Pol. arch. med. wewnet. 34 no.12:1561-1565 '64.

1. Z III Kliniki Chorob Wewnetrznych Akademii Medycznej we Wroclawiu (Kierownik: prof. dr. med. E. Szczeklik).

GABRYS, M.

The opening of the workshop in industrial hygiene and safety in the Krakow
Industrial Alchol Works. p. 298.

OCHRONA PRACY: BEZPIECZENTWO I HIGIENA PRACY
Vol. 9, no. 9, Sept. 1955
Warszawa

Source: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 2,
Feb. 1956

GABRYS, M.

"B. Szoic and M. Nowicki's Higiena i bezpieczenstwo pracy w chłodniach (Industrial Hygiene and Safety in Refrigeration Plants); a book review."

p. 18 (Ochrona Pracy; Bezpieczeństwo I Higiena Pracy) Vol. 10, no. 2,
Feb. 1956
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

GARRY, M.

Regarding protective clothing.

p. 28 (Ochrona Pracy; Bezpieczenstwo I Higiena Pracy. Vol. 10, no. 6, June 1956.
Warszaw, Poland)

Monthly Index of East European Accessions (EEA) 1C. Vol. 7, no. 2,
February 1958

GABRYS, M.

A few words about hygiene and industrial safety. p.24
(OCHRONA PRACY; BEZPIECZENSTWO I HIGIENA PRACY, Vol. 12, No. 6, June 1957, Warsaw, Poland)

SO: Monthly List of East European Acquisitions (EEAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

GABRYŚ, Paweł

CA

Determination of the ignition temperatures of solid fuels
Wojciech Opiński, opipX* and Gabryś (Inst. Względów,
Zakład Chem. Przemki, Katowice, Poland). *Bull. Inst.
Weglow. (Katowice), Kontyn.* No. 59, 15 pp (1979) (English
summary). -- The app. of Selskocieki and Rova *et al.* (J. of
22, 297) was used for the determination of the ignition temperatures
of solid fuels. The effects of particle size of the fuel and location
of the thermocouple on reproducibility of results were
observed. The fraction of 5 fractions of particle sizes (0.1-0.2 mm;
0.2-0.5 mm; 0.5-1.0 mm; 1.0-2.0 mm; >2.0 mm) gave the best reproducibility.
Locating the thermocouple at 5 mm. above the grate of the
reaction cell increased the precision of the results. It was
found that at least three dozen were necessary for a precise
av. Examining temperature curves and reaction temp.
showed that nonhomogeneity of the sample was responsible
for differences in ignition times. Then the difference
between the highest and lowest reaction temps. (based on
several tests) has been suggested as a test for the homogeneity
of a fuel. W. E. Gaff

GABRYŚ, P.

POL.

Olipiński W., Gabryś P., Pawlikowski T., Rozmus J. Spontaneous Ignition
of Bituminous Coals.

„Santozapalność węgla kamiennego”. (Prace GI. Inst. Górn. No. 139),
Stalinogród, 1953, PWT, 38 pp., 28 figs., 27 tabs.

A chemical analysis of 35 samples of coal originating from 10 collieries was carried out, and the spontaneous ignition, density and specific surface determined. Oxygen adsorption and sorption in a temperature range from 0 to 50°C were, together with the correlation of these properties, determined for a proportion of the samples. Six of the samples were tested in laboratory apparatus, and the effect was determined at 50° and 80° of grade and gradulation of the coal, of oxidising time, of rate of air flow and of oxygen concentration on variations in the air flow. The same samples of Not H size coal were, in progressively increasing temperatures, examined on a semi-technical scale. The speeds of spontaneous heating in individual coals and composition of combustion products at various temperatures and rate of flow were fixed, and the influence of oxidation upon the mechanical strength of coal investigated. The observations made served as the basis for a description of the mechanism of low-temperature oxidation. Moreover, they led to the submission of a more reliable definition as to the susceptibility of coal to spontaneous heating, and to the suggestion of a method, which could probably be used to advantage in colliery practice, for interpreting analyses of the "atmosphere" of coal. Principal conclusions: --

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GABRY'S, PAWEŁ

Spontaneous ignition of bituminous coals. I. Dependence of spontaneous ignition of coals on the sorptive power for nitrogen and oxygen. Wojciech Olpiński and Paweł Gabryś. *Prac. Głównej Inst. Górnictwa, Komun.* No. 139, 4-13(1953)(English summary).—Because of the high thermal effect of oxidation of atoms on corners and edges of the pores, the specific surface of 35 different flame and gas-flame coals was detd. from isotherms of N adsorption at a temp. of approx. -195°. Changes in temp., granulation, and whether the sample is kept in 1 atm. of N or air have only a minor effect on the sp. surface. The lower the sp. surface, the lower are hygroscopic I_2O_3 , d., and tendency to spontaneous ignition. At a surface of 10 sq. m. per g. volatile matter approaches a max. of approx. 40%. The C content is lower at higher sp. surface. There is no relation between sp. surface and contents of H and S. The sorption of O₂ and N was detd. at 0, 20, and 60°, on 2-g. samples. After 2 hrs. adsorption, the amts. of O₂ desorbed by jumping and amts. of adsorbed N are of the same range. The amt. of chemically combined O increases with temp.; at 60° most of the O is chemically combined. II. Changes in composition of the "atmosphere" of coals at the temperature of the beginning spontaneous ignition. Wojciech Olpiński, Tadeusz Pawlikowski, and Jerzy Rzomus. *Ibid.* 13-20.—Air at 50-80° was blown at velocities of 2-30 cm./min. through a 1-m. column of coal. After 12 hrs. sorbed O₂ and O converted to CO₂ were detd. After the initial period of rapid changes the O consumed approached a const. value. The formula of Schmidt and Edder (*C.A.* 31, 1836) showing the relation between reaction time quantity of O reacting was found satisfactory, especially after the initial period of 3-4 hrs. The formula applies also to the amt. of O sorbed. III. Investigations of the spontaneous ignition process on a pilot-plant scale. Wojciech Olpiński and Tadeusz Pawlikowski. *Ibid.* 20-31.—The oxidation of coal causes a decrease in mech. strength. Aerohydromic resistance of a 3-m. layer of screened coal in various heating stages, at an air velocity of 10 cm./min., was 120-150 cm.² of water gage. A period of rapid temp. rise for all coals began at approx. 80°. The required time for reaching this temp. is characteristic for the particular coal, and varies

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Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Fuels and Carbonization Products

2/2
Wojciech
Olpiniski

from 13 to 34 days. Washed coal heated most rapidly, although lab. tests indicated that the coal was hardly liable to spontaneous ignition. High ash and moisture contents greatly retard spontaneous heating. The ratios of oxygen converted to CO₂ to O adsorbed and of O converted to CO to O adsorbed are more sensitive to changes of temp. than is the ratio of O converted to CO₂ to total decrease of O in the air stream. IV. Mechanism of the low-temperature oxidation and evaluation of the tendency of coals to spontaneous ignition in view of preceding investigations. Wojciech Olpiniski. *Ibid.*, 32-1.—Adsorption of O, which is fairly high above 50°, is rather small compared with chemisorption, which increases rapidly with the rise of temp. At the same time the amt. of O that forms CO₂ and CO increases. At 100-150° chemisorption reaches its max. At low temps. the rate of CO₂ formation depends on the decompn. of surface complex rather than on the rate of for-
mation of this complex. 45 references. P. J. Hendel

(3)

5
H' 51
H' 0

GABRYS, T.; GUBERNAT, S.; JACKIEWICZ, J.

"Betterments of grasslands near Zarnowiec in the Pilica Valley; also remarks by T. Bartoszek, K. Jacniacki, and W. Sawicki."

p. 515 (Gospodarka Wodna) Vol. 17, no. 11, Nov. 1957
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

SECRET 10
MURKIN

The following is a copy of a memorandum dated 10 January 1968 from the Director of Central Intelligence to the Chairman of the Joint Chiefs of Staff.
A copy is also attached of the letter of the Secretary of Defense to the Chairman of the Joint Chiefs of Staff concerning the same subject matter.
This letter was prepared by the Office of the General Counsel of the Central Intelligence Agency.
Four territorial networks. The two programs will be conducted simultaneously.
of two programs will be conducted simultaneously.
General Headquarters of the General Security Agency, Washington, D.C., and our nation's capital, Washington, D.C., and the other in the state of California.
The two networks will be completed later this year.

GABRYŚ, Wiesław

Internal amplidyne feedback through short-circuited stator
windings. Archiw automat 9 no. 1:23-42 '64.

GABRYS, Wieslaw, dr

"Practical computation of electric D. C. machines" by S.
Loutzky. Reviewed by Wieslaw Gabrys. Przegl elekrotechn
40 no. 2: 110-111 F '64.

GABRYSZEWSKI, S.

Canoeing to the boundaries of peace on Poland's waters. p. 6.
TURYSTA. (Polskie Towarzystwo Turystyczno-Krajoznawcze) Warszawa.
No. 5, May 1955.

SOURCE: East European Accessions List, (EEAL), Library of
Congress, Vol. 4, no. 12, December 1955

GABRYSZEWSKI, S.

GABRYSZEWSKI, S. School for canoists. p. 22, No. 2, Feb. 1956. Warszawa, Poland
Turysta

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4—April 1957

GABRYŚZEWSKI, TADEUSZ

Gabryśzewski, Tadeusz. Domowe instalacje wodociagowo-kanalizacyjne; skrypt dla studentow wydz. Architektury. (We Wrocławiu) Państwowe Zakłady Wydawn. Szkolnych, 1951. (Water-supply and canalization installations. Pt. 1. Materials, fittings, accessories, and equipment of a water-supply and sewage system; a textbook. Bibl.)

SO: Monthly list of East European Accessions, LC, Vol. 3, No. 1,
Jan. 1954, Uncl.

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

GABRYJSKI, T.

"Calculating diameters of sewer pipes."

Gaz, Wiedza i Technika Sanitarna, Warsaw, Vol 28, No 4, Apr. 1954, p. 103

SO: Eastern European Acquisitions List, Vol 3, No 10, Oct 1954, Lib. of Congress

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

GABRYSZEWSKI, Tadeusz

Wiktor Mamak; obituary. Archiw hydrotech 10 no.2:319-321 '63.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

ZAWADZKI, Jerzy, prof. dr inz.; CIESLAR, Boguslaw, dr inz.;
GABRYSZEWSKI, Zdzislaw, dr inz.; OKOLOW, Bronislaw, dr inz.;
GODOWICZ, Tadeusz, dr inz.

Certain mechanical problems in the design of high-power turbo-generators. Przegl elektrotechn 40 no.5:222 My '64.

1. Department of Technical Mechanics, Technical University, Wroclaw (for Zawadzki, Cieslar, Gabryszewski, Okolow).
2. Dolmel Works, Wroclaw (for Godowicz).

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

SVETLITSKIY, V.A., kand. tekhn. nauk; STASENKO, I.V., kand. tekhn. nauk;
GABRYUK, V.I., inzh.

Steady motion and minor vibrations of an elastic string. Izv.
vys. ucheb. zav.; mashinostr. no.2:57-67 '65.
(MIRA 18:5)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

SVETLITSKIY, V.A., kand. tekhn. nauk; GABRYUK, V.I., inzh.

Investigating the steady motion of a string along a rough
cylindrical surface. Izv. vys. ucheb. zav.; mashinostr.
no.4:28-35 '65. (MIRA 18:5)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

ACC NR: AP7002173

SOURCE CODE: UR/0089/66/021/006/0519/0520

AUTHOR: Gabsatarova, S. A.; Kabakchi, A. M.

ORG: none

TITLE: Determination of the dose of the products of the nuclear reaction $B^{10}(n,\alpha)Li^7$ and of the temperature in the reaction zone when thermal neutrons act on borate glasses

SOURCE: Atomnaya energiya, v. 21, no. 6, 1966, 519-520

TOPIC TAGS: borate glass, neutron irradiation, neutron absorption, alpha particle reaction, lithium, heptane, neutron reaction, cracking reaction/ VVR-M reactor

ABSTRACT: In view of increasing interest in the use of neutron absorption for vulcanization of rubber, for spot welding of polymers, and other purposes, the authors have determined by calculations and by experiment the energy which α particles and Li^7 , produced when thermal neutrons act on borate glass, can transfer to a medium. Tables are presented of the energy transferred to the medium by the α particles and by the Li^7 recoil nuclei, as calculated by graphically integrating the contributions from different layers of the glass. The calculations were checked by experiments in one of the channels of a VVR-M reactor. The test procedure is briefly described. The tests agreed with the results of the calculations. The medium tested was n-heptane under cracking conditions. The results also showed that an appreciable fraction of the kinetic energy of the α particles and the Li^7 nuclei

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UDC: 614.8: 539.12.04

ACC NR: AP7002173

is converted into heat, raising the heptane to a temperature necessary for radiation-thermal cracking. The temperature is uniquely related to the reactor power and thus can be regulated by varying the reactor power. This relation is almost linear in the 250 - 450C range. Orig. art. has: 2 figures, 1 formula, and 3 tables.

SUB CODE: 18/ SUBM DATE: 31May66/ ORIG REF: 006/ OTH REF: 002

Card 2/2

KALANTAR, N.G.; Prinimali uchastiye: MAMNAFOVA, V.S.; GLAZUNOV, V.I.;
CAESATAROVA, S.A.; KUL'MURZINA, L.Kh.; AKHMETZYANOV, Ch.R.

Turbine oil 22 from Tuymazy crudes. Khim.i tekhn.topl.i masel 7
no.9:29-34 S '62. (MIRA 15:8)

1. Bashkirskiy filial AN SSSR.
(Insulating oils)

KALANTAR, N.G.; FRYAZINOV, V.V.; YEVSYUKOV, Ye.I.; EDEL'SHTEYN,
I.Ya.; BONDARENKO, M.F.; Prinimali uchastiye: MANNAFOWA, V.S.,
mladshiy nauchnyy sotrudnik; YANGURAZOVA, D.I., mladshiy nauchnyy
sotrudnik; GABSATTAROVA, S.A., laborant; YUSUPOVA, F.S., laborant
KUZ'MINA, A.Ya., laborant

Transformer oil from the distillates of sulfur-bearing eastern
crudes. Khim.i tekhn.topl.i masel 5 no. 11:15-22 N '60.
(MIRA 13:11)

1. Otdel khimii Bashkirskogo filiala AN SSSR; Novo-Ufimskiy
neftepererabatyvayushchiy zavod; Ufimskiy neftyanoy institut.
2. Otdel khimii Bashkirskogo filiala AN SSSR (for Mannafova,
Yangurazova, Gabsattarova, Yusupova, Kuz'mina).
(Insulating oil)

KALANTAR, N.G.; GLAZUNOV, V.I.; MANNIFOVA, V.S.; Prinimali uchastiye:
GAESATTAROVA, S.A.; OKUNEV, I.Ye.; KUL'MURZINA, L.Kh.;
AKHMETZYANOV, Ch.R.

Composition and properties of turbine distillates from
Tuymazy crudes. Khim. i tekhn. topl. i masel 8 no.9:31-38
S '63. (MIRA 16:11)

1. Bashkirskiy filial AN SSSR.

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

KATS, P.D.; GABUCHIYA, A.K.

Cholinesterase activity of the blood in healthy children. Izv.
AN Azerb. SSR. Ser. biol. nauk no.5;109-111 '64.

(MIRA 18:4)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6"

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S/048/60/024/010/006/033
B013/B063AUTHORS: Lundin, A. G., Aleksandrov, K. S., Mikhaylov, G. M.,
and Gabuda, S. P.TITLE: Study of Some Piezoelectric Substances by the Method of
Nuclear Magnetic Resonance /9PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 10, pp. 1195-1197

TEXT: The application of the method of nuclear magnetic resonance to the study of polycrystalline specimens is dealt with. This method served for examining polycrystalline specimens of Rochelle salt, triglycine sulfate and potassium ferrocyanide. The tests were conducted within a temperature range covering the phase transition points of these substances. For an increase of the signal level, the specimens which had a volume of about 2 cm^3 , were pressed by applying a pressure of 100 kp/cm^2 . The experimental arrangement is described in Ref. 8. The following results were obtained: Rochelle salt - $\text{KNaC}_4\text{H}_4\text{O}_6 \cdot 4\text{H}_2\text{O}$: at a temperature of $+23^\circ\text{C}$ (Fig. 1, 1) the second moment exhibits a jump of 4 oe^2 . This is in agree-

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Study of Some Piezoelectric Substances by the S/048/60/024/010/006/033
Method of Nuclear Magnetic Resonance B013/B063

ment with the data of Ref. 6. No modification of the second moment was observed in the region of the lower Curie point. Triglycine sulfate - $(\text{NH}_3\text{CH}_2\text{COO})_3 \cdot \text{H}_2\text{SO}_4$: Curve 2 (Fig. 1) shows that the second moment retains the same magnitude in a wide temperature range, and amounts to $\sim 8 \text{ oe}^2$. Experimental results do not contradict the data of Ref. 10. Potassium ferrocyanide $\text{K}_4\text{Fe}(\text{CN})_6 \cdot 3\text{H}_2\text{O}$: The piezoelectric phase transition at -22°C was discovered in 1959 (Ref. 11). Curve 3 (Fig. 1) shows the change of the line width with phase transition. Fig. 2 gives the modification in the form of the resonance line derived on the passage through the Curie point. P. P. Kobeko and I. V. Kurchatov are mentioned. The present paper was read at the Third Conference on Piezoelectricity, which took place in Moscow, from January 25 to 30, 1960. There are 2 figures and 13 references: 4 Soviet.

ASSOCIATION: Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR
(Institute of Physics of the Siberian Branch of the
Academy of Sciences USSR)

Card 2/2

I. 18720-63

EWT(1)/EWP(q)/EWT(m)/BDS AFFTC/ASD/ESD-3 GG/JD/JG

ACCESSION NR: AP3003903

S/0181/63/005/007/2009/2011

AUTHORS: Lundin, A. G.; S. P. Gabuda

64
62TITLE: Temperature dependence of the electrical-field gradient in ferroelectric sodium nitrite

21

SOURCE: Fizika tverdogo tela, v. 5, no. 7, 1963, 2009-2011

TOPIC TAGS: temperature, electrical field, gradient, ferroelectric, Na, N, O, phase transition, lattice vibration, thermal vibration, magnetic resonance, spontaneous polarization

ABSTRACT: The authors have undertaken this study because they believe a knowledge of the intracrystalline electrical field to be essential for an explanation of spontaneous polarization in crystals. Considering this knowledge to be obtainable by investigating the magnetic resonance of nuclei possessing electrical quadrupole moments, they studied the magnetic resonance of Na^{23} nuclei in NaNO_2 in the temperature range 20-200°C. They found that with increase in temperature the distance between components of the spectra and, consequently, the gradient of the electrical field along the a and b directions actually diminished, whereas the gradient did not change along the c axis. Their measurements indicate that in the investigated

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ACCESSION NR: AP3C03903

temperature interval the crystal does not expand but rather contracts along the c axis during heating. This suggests that a decrease in gradient in this direction (because of thermal vibration of the lattice) may be compensated for by an increase in gradient due to shortening of the interatomic spacing. Anomalies in the temperature-dependence curves for the splitting of components were found at 163 and 178°C. A jump at 178°C is independent proof that phase transition occurs at this temperature. The authors conclude that a more complete understanding of the nature of phase transitions at 163 and 178°C may be possible after theoretical computation of the electrical-field gradients in NaNO_2 , starting from actual models representing charge distribution and the mechanism of spontaneous polarization, and then comparing these with the experimental values obtained. Orig. art. has: 1 figure.

ASSOCIATION: Institut fiziki SO AN SSSR, Krasnoyarsk (Institute of Physics, Siberian Department, Academy of Sciences, SSSR)

SUBMITTED: 25Feb63

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: PH

NO REF Sov: 003

OTHER: 006

Card 2/2

S/058/61/000/010/031/100
A001/A101

247900

AUTHOR: Gabuda, S.P.

TITLE: On the frequency shift of nuclear magnetic resonance in superconductors

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 158, abstract 10V311 (V sb. "Paramagnitn. rezonans", Kazan', Kazansk. un-t, 1960, 183-185)

TEXT: The ratio of magnetic susceptibility of superconducting electrons to magnetic susceptibility of free electrons is calculated for the case of superconducting metals. It is found that this quantity depends on the specimen size. The formula derived explains well the difference between the data of Rife (RZhFiz, 1958, no. 2, 3241) and Knight et al. (RZhFiz, 1957, no. 9, 22410) as to the Knight shift of nuclear magnetic resonance signals in superconducting colloidal mercury.

N. Pomerantsev

[Abstracter's note: Complete translation]

Card 1/1

LUNDIN, A.G.; ALEXANDROV, K.S.; MIKHALOV, G.M.; GABUDA, S.P.

Investigating some seignettelectrics by the nuclear magnetic resonance method. Izv. AN SSSR Ser. fiz. 24 no.10:1195-1197 O '60.
(MIRA 13:10)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR.
(Nuclear magnetic resonance) (Ferroelectric substances)

LUNDIN, A.G.; MIKHAYLOV, G.M.; GABUDA, S.P.

Studying the reorientation of the guanidinium ion in the ferroelectric $\text{G}(\text{NH}_2)_3 \cdot \text{Al}(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$ by the nuclear magnetic resonance method. Zhur. eksp. i teor. fiz. 40 no.5:1282-1288 My '61. (MIRA 14:7)

1. Institut fiziki Sibirskogo otdeleniya Akademii nauk i Sibirskiy tekhnologicheskiy institut.
(Ferroelectric substances) (Guanidinium) (Nuclear magnetic resonance)

24.7900 (1144, 1163, 1482)

26690
S/056/51/041/005/005/038
B104/B108

AUTHORS: Mikhaylov, G. M., Lundin, A. G., Gabudia, S. P.

TITLE: Magnetic resonance of F¹⁹ nuclei in the (NH₄)₂BeF₄ ferroelectric

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,
no. 5(11), 1961, 1370-1374

TEXT: The authors studied the second moment of the nuclear magnetic resonance absorption line of F¹⁹ in (NH₄)₂BeF₄ in the temperature range of from -183°C to room temperature. The second moment of this line is determined by the structure of the crystal and may be calculated by Van Vleck's formula (Phys. Rev., 74, 1168, 1948). The authors assume that the (BeF₄)²⁻ ion is a regular tetrahedron with the Be atom as its center. The distances F-F and F-Be are 2.63 and 1.61 Å, respectively. Moreover, it is assumed that the (BeF₄)²⁻ ions and the (NH₄)⁺ ions in the structure

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Magnetic resonance of F¹⁹ nuclei...

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S/056/61/041/005/005/038
B104/B108

of $(\text{NH}_4)_2\text{BeF}_4$ are located just as the $(\text{SO}_4)^{2-}$ ions and the $(\text{NH}_4)^+$ ions in the structure of $(\text{NH}_4)_2\text{SO}_4$. The second moment of the nuclear magnetic resonance absorption line of F¹⁹ is shown as a function of temperature in Fig. 1. The change of the second moment in the range from -100 to -20°C is a result of an ordinary rotational transition, connected with a reorientation of the $(\text{BeF}_4)^{2-}$ ions around a fixed axis. This axis coincides with the c axis of the crystal. The height of the potential barrier of reorientation as determined from the temperature dependence of the second moment is found to be 9.5 ± 0.4 kcal/mole. B. Mattias and D. Remeyka (St. Fizika dielektrikov (Physics of Dielectrics); Gostekhizdat, 1960, p. 305) are mentioned. The authors thank V. A. Koptzik for submitting the crystal investigated, and K. S. Aleksandrov for his interest and valuable advice. There are 3 figures, 1 table, and 12 references: 4 Soviet and 8 non-Soviet. The 4 most recent references to English-language publications read as follows: R. Pepinsky, F. Yona, Phys. Rev., 105, 344, 1957; Y. Okaya, K. Vedam, R. Pepinsky. Acta Cryst.

X

Card 2/4

Magnetic resonance of F¹⁹ nuclei...

26'90

S/056/61/041/005/005/038
B104/B108

11, 307, 1958; R. Blinc, I. Levstek, Phys. and Chem. Solids, 12, 295,
1960, T. P. Das. J. Chem. Phys., 27, 675, 1957.

ASSOCIATION: Institut fiziki sibirskogo otdeleniya Akademii nauk SSSR
(Institute of Physics of the Siberian Department of the
Academy of Sciences USSR)

SUBMITTED: May 16, 1961

X

Card 3/4

88408

S/020/61/136/004/021/026
B028/B060

9.4300 (1043, 1137, 1138)

AUTHORS: Lundin, A. G., Mikhaylov, G. M., and Gabuda, S. P.

TITLE: Behavior of Crystal Water in the $K_4Fe(CN)_6 \cdot 3H_2O$ FerroelectricPERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 4,
pp. 864-867

TEXT: Monoclinic crystals of this salt have four $K_4Fe(CN)_6 \cdot 3H_2O$ molecules per elementary cell ($a=9.32A$, $b=16.84A$, $c=9.32A$). A study of this salt by the method of the magnetic proton resonance led to the discovery of a considerable change of the second moment of proton absorption lines on the passage through the Curie point. The second moment of absorption lines is given by

$S = \int_{-\infty}^{+\infty} f(H) \cdot (H - H_0)^2 dH$, where $f(H)$ is the normalized function of the line shape, $(H - H_0)$ = difference between magnetic field strength and resonance field strength; it characterizes the interaction of protons in

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Behavior of Crystal Water in the
 $K_4Fe(CN)_6 \cdot 3H_2O$ Ferroelectric

S/020/61/136/004/021/026
B028/B060

matter, and its change points to a change in the position or in the mobility of the protons. The signal-to-noise ratio was increased by using crystal powder pressed at 150 kg/cm² in a cylinder 13 mm in diameter and 20 mm long. Single crystals (12x6x20cm³ and 12x8x20cm³) were also examined in a special Dewar vessel at temperatures between 77 and 400°K. Absorption spectra were taken at a magnetic field strength $H_0 = 3000$ oersteds with a change of field strength of 0.0194 and 0.0097 oe/sec. Fig. 1 shows the dependence of the second moment of the lines on temperature, Fig. 2 the proton resonance spectra at various temperatures. The second moment was calculated with $S = S_0 + S_1$; S_0 = intramolecular part, caused by a pair interaction of protons in the H₂O molecule, S_1 = intermolecular part caused by the interaction of "pair" protons with other nuclei which display a magnetic moment. The following relations

hold for polycrystals: $S_0 = 358.1 \cdot 10^{-48} r^{-6}$,

$$S_1 = 358.1 \cdot 10^{-48} \sum_j r_j^{-6} + \frac{4}{15} \sum_k I_k (I_k + 1) g_k^2 \beta^2 r_k^{-6}, \text{ where } r = \text{distance in cm}$$

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Behavior of Crystal Water in the
 $K_4Fe(CN)_6 \cdot 3H_2O$ Ferroelectric

S/020/61/136/004/021/026
B028/B060

between the protons in the H_2O molecule, r_k = distance from other nuclei with spin I_k and the hydromagnetic ratio δ_k , r_j = distance from protons of other H_2O molecules, β = nuclear magneton. Fig. 3 shows an absorption line of a $K_4Fe(CN)_6 \cdot 3H_2O$ single crystal at $-183^\circ C$ with a maximum splitting of $\Delta H_{max} = 21.6$ oersteds. The widening of the line peak is mainly caused by intermolecular interaction. The calculation for the intermolecular part gives $S_1 = 0.6 \pm 0.66$ oe 2 . S_0 calculated on the basis of $\Delta H_{max} = 3\mu r^{-3}$ (μ = magnetic moment of the protons, $r=1.575 \pm 0.015\text{\AA}$) gives 23.5 ± 1.2 oe 2 . The second moment of 23.5 oe 2 is typical of the rigid H_2O molecule in the crystal hydrate. There are two reasons accounting for S dropping at $-150^\circ C$:
X
distance of protons from one another, or appearance of rotational or translational degrees of freedom at the H_2O molecule. Doublet lines disappear at $-35^\circ C$, which is indicative of the fact that at this temperature all molecules undergo rearrangement. For the "third" water molecule in $K_4Fe(CN)_6 \cdot 3H_2O$, the doublet disappears only at -20° . Near the Curie point, the drop of the potential barrier proves that a rearrangement of the molecules connected with a change of symmetry. The central peak of

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Behavior of Crystal Water in the
 $K_4Fe(CN)_6 \cdot 3H_2O$ Ferroelectric

S/020/61/136/004/021/026
B028/B060

the curve at +60°C is due to self-diffusion of the H₂O molecule. There are 3 figures and 10 references: 4 Soviet, 2 Japanese, and 4 US.

ASSOCIATION: Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR
(Institute of Physics of the Siberian Department, Academy
of Sciences USSR). Sibirskiy tekhnologicheskiy institut
Krasnoyarsk (Siberian Technological Institute Krasnoyarsk)

PRESENTED: July 21, 1960, by V. N. Kondrat'yev, Academician

SUBMITTED: August 18, 1960

Card 4/6

4

MIKHAYLOV, G.M.; LUNDIN, A.G.; GABUDA, S.P.; ALEKSANDROV, K.S.

Proton magnetic resonance in selenurea. Dokl. AN SSSR 141 no.6:
1406-1408 D '61. (MIRA 14:12)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR i Sibirskiy
tekhnologicheskiy institut. Predstavлено akademikom V.N.Kondrat'-
yevym.
(Urea) (Nuclear magnetic resonance and relaxation)

GABUDA, S. P.

"NMR-studies of the phase transitions in ferroelectrics."

report presented at the Symposium on Phase Transitions in Solids, 6th General Assembly, Intl. Union of Crystallography, Rome, Italy, 16-18 Sep 1963.

(Institute of Physics, Siberian Department, Academy of Sciences, Krasnojarsk, USSR)

GABUDA, S.P.; LUNDIN, A.G.; MIKHAYLOV, G.M.

Magnetic resonance of protons in desmine. *Geokhimiia* no.4:
436-439 Ap '63. (MIRA 16:7)

1. Institut fiziki, Krasnoyarsk.
(Protons) (Stilbite)
(Nuclear magnetic resonance and relaxation)

GABUDA, S.P.; MIKHAYLOV, G.M.

Magnetic resonance of protons of water in zeolites at low temperatures.
Zhur.strukt.khim. 4 no.3:446-447 My-Je '63. (MIRA 16:6)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR, Krasnoyarsk.
(Zeolites—Spectra)

LUNDIN, A.G.; GABUDA, S.P.

Temperature dependence of the electric field gradient in the
ferroelectric NaNO_2 . Fiz. tver. tela 5 no.7:2009-2011 J1 '63.
(MIRA 16:9)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR, Krasnoyarsk.
(Ferroelectric crystals) (Electric field)

GABUDA, S.P.; LUNDIN, A.G.; MIKHAYLOV, G.M.; ALEKSANDROV, K.S.

Position of hydrogen atoms in natrolite. Kristallografiia 8
no.3:388-392 My-Je '63. (MIRA 16:11)

1. Institut fiziki Sibirskogo otsteleniya AN SSSR i Sibirskiy
tekhnologicheskiy institut.

GABUDA, S.P. MIKHAYLOV, G.M.

Reorientation of water molecules in heulandite. Izv. SO AN SSSR no.
11 Ser.khim.nauk no.3:123-125 '63. (MIRA 17:3)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR, Krasnoyarsk.

GABUDA, S.P.; MIKHAYLOV, G.M.; ALEKSANDROV, K.S.

Behavior of zeolite water and the symmetry of harmotome.
Dokl. AN SSSR 153 no.6:1360-1362 D '63. (MIRA 17:1)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR. Predstav-
leno akademikom M.M. Dubininym.

GABUDA, G.P.; GAGARINOV, I.I.; TIKHONOV, S.A.; LAV. M. A.d.

Proton resonance in uranium peroxide hydrates. Their strukt.
khim. 5 no. 2:303-305 Mr-Ap '64. (MIRA 1716)

1. Institut fiziki Sibirskej akademii AN SSSR, Krasnoyarsk
i Institut neorganicheskoy khimii Sibirskogo otdeleniya AN
SSSR, Novosibirsk.

GAGARIN, Yu. ; GABUDZ, S.P. ; MIKHAYLOV, G.M.

Proton magnetic resonance in uranium tetrafluoride crystal
hydrates. Zhur. strukt. khim. 5 no.3.363-386 My-ic '64.

(MIRA 13:7)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AM
SSR, Novosibirsk, Sibirskiy tekhnologicheskiy institut i
Institut fiziki Sibirskogo otdeleniya AM SSSR, Krasnoyarsk.

GABUDA, S.P.; GAGARINSKIY, Yu.V.; LUNDIN, A.G.; MIKHAYLOV, G.M.

Magnetic resonance of F^{19} nuclei in uranium and thorium tetra-fluorides. Zhur. strukt. khim. 5 no.5:789-791 S.O '64
(MIRA 18:1)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR, Krasnoyarsk,
i Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

BELITSKIY, I.A.; BUKIN, G.V.; GABUDZHE, S.P.; MIKHAYLOV, G.N.

Investigation of laumontite using the method of nuclear magnetic resonance. Dokl. AN SSSR 159 no.5:1038-1040 D '64 (MIRA 18:1)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.
Predstavлено akademikom V.S. Sobolevym.

L 2500/1-65 ENF(m)/tPF(c)/EPF(n)-2/EPR/EXP(t)/EWP(b) Pr-4/Ps-4/Pu-4 IJP(c)

JW/JG/DM

ACCESSION NR: AP 5004003

S/0089/65/018/001/0040/0045

AUTHORS: Gagarinskiy, Yu. V.; Khanayev, Ye. I.; Galkin, N. P.;
Anan'yeva, L. A.; Gabuda, S. P.

58
36
B

TITLE: On the crystal hydrate $\text{UF}_4 \cdot 0.75\text{H}_2\text{O}$

SOURCE: Atomnaya energiya, v. 18, no. 1, 1965, 40-45

TOPIC TAGS: crystal hydrate, ⁷uranium ⁷fluoride, dehydration, crystal syngony, water of crystallization, phase transition

ABSTRACT: X-ray diffraction, refractometry, ir spectroscopy, nuclear magnetic resonance, and thermography are used to investigate a new hydrated form of uranium tetrafluoride with composition $\text{UF}_4 \cdot 0.75\text{H}_2\text{O}$, and the product of its dehydration. The results have shown that this form is a hitherto unknown crystal hydrate of uranium tetrafluoride of monoclinic syngony. The water is retained in this crystal

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L 26923-65
ACCESSION NR: AP5004003

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hydrate by the hydrogen bond with fluorine. Depending on the strength of the bond, the water molecules can be subdivided into three groups, corresponding to three peaks in the absorption bands of the valence and deformation vibrations of the O-H bond. Dehydration of the investigated crystal hydrate proceeds in two stages. The syngony of the initial crystal hydrate is conserved at least down to the $\text{UF}_4 \cdot \text{H}_2\text{O}$ core. With further dehydration (to 0.5 H_2O), the substance experiences a phase transformation accompanied by a change in the structure. The crystal lattice of the phase produced is quite close to that of the crystal hydrate of cubic syngony. "The authors thank S. S. Batsanov for refractometric investigations, taking the ir spectra, and a discussion of the results, and also L. A. Khrapin for taking the thermograms. Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: None

Cord

2/3

ACCESSION NR: AF 5004003

SUBMITTED: 24Jul64

ENCL: 00

SUB CODE: SS .^{sp}

NR REF SOV: 004

OTHER: 002

- Card

3/3

L 57020-65 IWT(I)/EPA(s)-2/EWT(m)/EPP(c)/EEC(t)/EWP(t)/EWP(b) Pt-7/Pi-4/
P1-4 IJP(c) JD/WW/GG

ACCESSION NR: AP5016116

UR/0048/65/029/006/0907/0909

AUTHOR: Aleksandrov, K.S.; Gabuda, S.P.; Lundin, A.G.

TITLE: Proton magnetic resonance in ferroelectric dicalcium strontium propionate ²¹ Report, 4th All-Union Conference on Ferroelectricity held in Rostov-on-the-Don 12-18 Sept 1964

SOURCE: AN SSSR. Izvestiya. Ser.fizicheskaya, v.29,no.6,1965,907-909

TOPIC TAGS: ferroelectric material, polycrystal, magnetic resonance, proton resonance, phase transition, calcium compound, strontium compound, organic compound

ABSTRACT: The proton magnetic resonance spectra of polycrystalline samples of $\text{Ca}_2\text{Sr}(\text{CH}_3\text{CH}_2\text{COO})_6$ were investigated from room temperature to -196°C in a magnetic field of 3000 Oe. The measurements were undertaken to obtain information concerning the disposition of the CH_3CH_2 groups in the crystal lattice. The polycrystalline samples were obtained by evaporating solutions of calcium and strontium propionates.

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L 57020-65

ACCESSION NO: AP5016116

2

and the magnetic resonance apparatus has been described elsewhere (A. G.Lundin and G.M.Mikhaylov, Pribory i tekhn.eksp., No.2, 92, 1960). Above the 8.5°C ferroelectric Curie point the second moment of the absorption line was 5 Oe². At the Curie point the second moment increased to 8 Oe² and remained at this value to liquid nitrogen temperatures where it began to increase gradually with decreasing temperature. These absorption widths are compared with widths calculated with different assumptions concerning the behavior of the CH₃ and CH₂ groups in the lattice. It is concluded that the ferroelectric transition cannot be due to reorientation of the CH₃ and CH₂ groups about the C-C bonds but is probably related to the fact that the propionate ion is not planar. According to this hypothesis transitions between two equally probable nonplanar configurations would be possible above the Curie point but not below it. "The authors thank A.I.Rostuntseva for the synthesis of the compound and N.F.Kostin for the x-ray identification." Orig.art.has: 2 figures.

Cord 2/3

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000513930004-6

L 57020-65

ACCESSION NR: AP5016116

ASSOCIATION: Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR
(Physics Institute, Siberian Section of the Academy of Sciences, SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: 88, NP

MR REF. NOV: 002

OTHER: 009

Cord 3/5

ACC NR: AP6018555

SOURCE CODE: UR/0181/66/008/006/1889/1894
83
77
B

AUTHOR: Lundin, A. G.; Gabuda, S. P.

ORG: Institute of Physics, SO AN SSSR, Krasnoyarsk (Institut fiziki SO AN SSSR)

TITLE: Anisotropy of magnetic screening of nuclei of F¹⁹ in single-crystal LaF₃

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1889-1894

TOPIC TAGS: lanthanum compound, fluoride, nmr spectrum, temperature dependence, magnetic anisotropy, chemical bonding, conjugated bond system

ABSTRACT: The magnetic screening was investigated by plotting the nuclear magnetic resonance spectra in cylindrical single-crystal LaF₃ cut with axes parallel to [100] and [001]. The NMR spectra were obtained with a modified JNM-3H-60 BL-2 spectrometer at fixed frequencies 15 and 37 Mc at temperatures from room temperature to -100°C. The rate of variation of the magnetic field was ~2 Oe/min. The shift of the NMR spectrum components was determined by using liquid CeF₆ as a standard. The magnetic screening constants of the nuclei of the two nonequivalent groups of fluorine atoms in the structure were determined and used to obtain certain parameters of the electronic structure of the crystal. These include the relations between the screening-tensor components and the charge matrix elements, the populations of the orbitals of the valence shell of fluorine, the degree of ionicity of the σ coupling and others. It is shown that the σ bonds of LaF₃ are strongly ionic (up to 94%), and the covalent component of the LaF₃ bond is made up almost entirely by π bonds. Consequently the

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ACC NR: AP6018555

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system of π electrons of the F_1 atoms together with the π electrons of the La atoms form a conjugated system of bonds similar to the π -bonds in graphite. This explains the metallic character of the reflection of light from the cleavage plane of LaF_3 observed experimentally. The authors thank P. P. Feofilov and B. I. Maksakov for supplying the LaF_3 crystals and A. I. Livshits for help with recording and processing the spectra. Orig. art. has: 3 figures and 7 formulas.

SUB CODE: 20/ SUBM DATE: 29Nov65/ ORIG REF: 002/ OTH REF: 013

(ns)
Card 2/2

L 05023-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW/HW/JG/GG

ACC NR AP6032465

SOURCE CODE: UR/0056/66/051/003/0707/0710

AUTHOR: Gabuda, S. P.; Lundin, A. G.; Gagarinskiy, Yu. V.; Batsanova, L. R.; Khrapin, L. A.

56
B

ORG: Institute of Physics, Siberian Branch, Academy of Sciences SSSR (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR); Institute of Inorganic Chemistry, Siberian Branch, Academy of Sciences SSSR (Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Nuclear magnetic resonance and hyperfine interaction in crystals of the tysonite structural type

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 3, 707-710

TOPIC TAGS: nuclear magnetic resonance, hyperfine interaction, hyperfine interaction constant, hyperfine coupling constant, crystal symmetry, tysonite type crystal, fluorine nucleus, fluorine compound, trifluoride, cerium trifluoride, praseodymium trifluoride, neodymium trifluoride, uranium trifluoride

ABSTRACT: The magnetic resonance spectra of F¹⁹ nuclei in cerium trifluoride,

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L 05023-67

ACC NR: AP6032465

praseodymium trifluoride, neodymium trifluoride, and uranium trifluoride poly-crystalline samples were studied. The averaged values of local magnetic fields near the fluorine nuclei were determined, and values of hyperfine coupling constants F^{19} nuclei with unpaired electrons were estimated. It was shown that the hyperfine interaction constant in cerium trifluoride is zero, whereas the constant A^* significantly differs from zero for praseodymium trifluoride, neodymium trifluoride, and uranium trifluoride. The results obtained were interpreted on the basis of symmetry properties of the investigated crystals. The authors thank L. G. Falayeva for preparing all calculations by computer. Orig. art. has: 2 figures. [Based on authors' abstract]

SUB CODE: 07, 20 / SUBM DATE: 11Jan66 / ORIG REF: 002 / SOV REF: 001 /
OTH REF: 021 /

Card 2/2 LC

GABRYS, Stefan

Achievements of the heat management in traction. Przegl kolej
mechan 14 no.6:171-172, 181-184 Je '62.

1. Zarzad Trakcji, Dyrekcja Okregowa Kolei Państwowych, Poznan.

GABUCH'YAN, V.M.

[The economy of Great Britain in the world capitalist economic system after the Second World War] Ekonomika Anglia vo vseirnoi kapitalisticheskoi sisteme khoziaistva; posle Vtoroi Mirovoi voiny. Erevan, Izd-vo Erevanskogo gos. univ., 1962. 209 p.
(MIRA 15:12)
(Great Britain--Economic conditions)

GABUDA, S.P.

Diffusion of water molecules in nitrolite. Dokl. AN SSSR
146 no.4:840-843 O '62. (MIRA 15:11)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR.
Predstavлено академиком V.N. Kondrat'yevym.
(Nitrolite) (Water) (Diffusion)

GAMIDEANU, Iacob, Ing.

Prestressing of suspension springs. Constr mas 15 no.11/12:
779-781 N-D '63.

RUSZOWSKI, Marian; BAERTI, Juan M.; GABUDZA, George J.

Disorders of amino acid excretion in acute potassium deficiency in
patients with liver cirrhosis treated with mercury preparations.
Poznan. tow. przyjaciol nauk wydz. lek 21 no.2:83-95 '61.
(LIVER CIRRHOSIS ther) (DIRUETICS MERCURIAL ther)
(POTASSIUM defic) (AMINO ACIDS urine)

CHOGOVADZE, G.I., red.; GOMELAURI, N.G., red.; DZHOMARDZHIDZE, G.S., red.;
GABUNIYA, A.A., red.; CHIAYEV, I.S., red.; GANGIA, A.K., red.;
ABESADZE, N.K., red.; YAKIMOVA, A., tekhn. red.

[Forty years of Georgian industries, 1921-1961] Promyshlennost' Gru-
zii za 40 let, 1921-1961 g.g. Tbilisi, izd-vo "Zaria Vostoka,"
1961. 253 p.
(MIRA 14:8)

1. Georgia. Ekonomicheskiy administrativnyy rayon. Sovet narodnogo
khozyaystva.
(Georgia—Industries)

GABUNIYA, A.M., geroy Sotsialisticheskogo Truda; KACHIBAYA, I.D., redaktor

[Kokhorskii State Citrus Farm] Kokhorskii tsitrusovyi sovkhoz.
Tbilisi, M-va sovkhозov Grusinskoi SSR, 1955. 55 p. [Microfilm]

1. Direktor Kokhorskogo tsitrusovogo sovkhoza (for Gabuniya)
(Citrus fruits)

MAYSURADZE, Z.N.; GABUNIYA, D.S.; LEGRAN, N.E.; MAKADZE, M.M.;
MAKHATADZE, N.K.; SARKISOVA, Ye.G.;
TSIBADZE, D.S.

Microvascular system of the cerebral cortex in dogs. Soob.
AN Gruz. SSR 26 no.4:469-476 Ap '61. (MIRA 14:8)

1. Tbilisskiy gosudarstvennyy meditsinskiy institut.
Predstavлено академиком А.Д. Zurabashvili.
(CEREBRAL CORTEX—BLOOD VESSELS)

GABUNIYA, D.V., Cand Med Sci -- (diss) "On the problem of
anesthesia in operations ~~in~~ (goiter)" Tbilisi, 1958,
20 pp (Tbilisi State Med Inst) 200 copies (KL, 50-58, 12-)

- 115 -

GABUNIYA, D.V.

Anesthesia in goiter operations. Soob. AN Gruz. SSR 21 no.4:
485-489 O '58. (MIRA 12:4)

1. AN GruzSSR, Institut eksperimental'noy i klinicheskoy khirurgii
i gematologii, Tbilisi. Predstavлено академиком K.D. Eristavi.
(ANESTHESIA) (GOITER)

BARABADZE, I.I.; BAKRADZE, G.S.; BERIDZE, G.I.; VAKHVAKHISHVILI, N.I.;
~~GABUNIYA, G.A.~~; GABUNIYA, Sh.V.; GANGIYA, A.A.; COCOBERIDZE, Ya.A.;
DZIMISTARISHVILI, A.I. [deceased]; ZNAMENSKIY, K.F.; KVANTALIANI,
N.A.; NIKOLAYSHVILI, V.S.; TOPADZE, L.I.; KHUNTSARIYA, A.G.; YAKO-
BASHVILI, N.Z.; DZHOMARDZHIDZE, G.S., red.; ROYNISHVILI, N.I., red.;
PRITYKINA, L.A., red.; KISINA, Ye.I., tekhn. red.

[Food industry of the Georgian S.S.R. during the last 40 years]
Pishchevaya promyshlennost' Gruzinskoi SSR za 40 let. Moskva,
Pishchepromizdat, 1961. 162 p. (MIRA 14:9)
(Georgia--Food industry)

GABUNIA, G. Sh., Cand Med Sci -- "Hygienic features of labor
and living conditions of the Chiatur manganese-mined workers."
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Country : USSR
CATEGORY : Farm Animals. Honeybee
ABS. JOUR. : RZRIol., No. 13 1958, No. 59659

AUTHOR : Gabuniya, I.A.
INST. :
TITLE : The Apiculture of Georgia.

ORIG. PUB. : Pchelovodstvo, 1957, No.11, 19-23

ABSTRACT : In Georgia, apiculture exists from time immemorial. In many places which are not populated, even now wild bees do exist. In 1930, the bee colonies numbered 22 thous. and in 1957 there were more than 250 thous. colonies. In the high-mountain districts of the southern slope of the Main Caucasian Range, a well known Gray Georgian honeybee is found which is characterized by a good honey production, peacefulness, limited

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This substation contains two transformers, each rated 15/15/10 MVA 110/38.5/6.6 kV, and interconnects three power stations and five 6-6 kV load feeders. The incoming lines are at all three voltage levels. All switching is with solenoid-operated oil circuit-breakers controlled from a central despatching office distant 2.5 km. Telemetering includes also indication of position of o.c.b.s., indication of their faults, non-operation, ground fault on 6-35 kV busbars, remote indication of operation of differential and gas (Buchholz) power transformer relays, telemetering of current outputs of all three power transformer windings, voltage on the 6 kV busbar and continuous telemetering of frequency on the 110 kV busbar. Details are given of maintenance procedures and of a satisfactory operating experience.

J. LUKASZEWICZ

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